Transcript – Dr Tim Colbourn

This interview took place via internet video chat at approximately 8am EST on June 8, 2026. The interviewer was Geoffrey Young (indicated in red). The respondent was Dr Tim Colbourn.

G- Could you, first off, tell me the story of your involvement with the covid response?

So, where should I start? So, I mean, I saw it coming from the beginning. I still actually remember the announcement on the radio that on New Year's Eve in 2019, that scientists have found this new human pneumonia-like disease that was spreading and it had no known, it's of unknown origin. So it's potentially a new pandemic thing. So I was following it closely from then from and then January, seeing things happening. And then following also with increasing alarm, the lack of involvement, the lack of preparation by the UK government. So I'm based here in London. We had Boris Johnson in power at the time. He seemed to take a very relaxed and nonchalant attitude to it, like he did with a lot of things. And so, by February, very little had been done.

They were kind of questioning whether it would even, well, a lot of people were questioning whether it had even become a serious issue. or whether it would just stay in China. But I think it was clear from anyone who knows about infectious disease spread that it wasn't just going to stay in China. I mean, China did, you know, they did a heroic effort to try to stamp out, if you like, you know, with the really extreme restrictions. When they started building those hospitals in a couple of weeks at the end of January, you know, you could tell that it was going to be serious.

Again, the UK government pretty relaxed. Boris Johnson is still shaking hands with people when he's visiting hospitals for another reason in early March. 01:58 Big sporting events are going ahead. So meanwhile, I'm following it online with increasing alarm and frustration that nothing seems to be doing, nothing seems to be going well in terms of preparation. And I guess in, by early March I had met a lot of people online also discussing the pandemic.

So my, I should say actually my background, so I work at UCL, the Institute for Global Health. I did a master's in control of infectious disease 20 years ago, so that's where I got the initial interest in this. and then a PhD in health economics. Much of my work is actually not in infectious diseases. It's a maternal and newborn and child health, but I still kind of retained an interest and expertise in those issues. And so then by March, it was becoming apparent that we would need to lock down because of a lack of

preparation and a lack of kind of any other way of doing it. But I became interested in the testing and tracing in isolation as a kind of third way, if you like.

So a third way between lockdown, which would have extreme side effects, which have been shown now, and the let it rip, which would obviously also not be very good, which could overwhelm the health system and result in many more deaths than would otherwise happen. So we started looking into, so with just a group of people that I found on the internet, we started looking into testing, tracing and isolation strategies. And the idea was to produce evidence on whether that approach, testing, tracing and isolation at a population scale, together with use of face masks and other kind of non-lockdown interventions could keep the pandemic at bay enough to stay within limits in hospitals, reduce mortality from the most vulnerable. And we looked at the economics of that as well as the mathematical modelling. And so we were shocked to realize that none of the main modelling groups advising the government, so SPI-M, the group at Imperial as well who made the famous lockdown model. They just were not looking at testing, tracing and isolation in those models. So we started developing work to actually incorporate that into compartmental models. So that was eventually published in 2021 with William Waites and Simone Sterlioni as the lead authors. So, they worked that out from first principles. And then we used that model which we developed in Python to, and then a detailed costing exercise on testing, tracing and isolation to make the economic case for testing and tracing and isolation at the population level, make the health economic case for that. 5:25 And so we did loads of analysis of scenarios suggesting that it would be an optimal way forward compared to lockdown because we incorporated the economic cost of lockdown in that model for when the testing and tracing and isolation was not on. And that was an interesting experience because I got 25 people involved in that paper, again, all volunteers. A lot of them I met on the internet who I wasn't colleagues with before, like William. And we published that paper as a pre-print by when was it? Early June, I think, in 2020. But before then, we had already actually got some traction in the sense that we did meet with some advisors to Boris Johnson and some of the early forerunners to the NHS test and trace, which only really came online in September. So we had a limited impact. We tried to get that paper in The Lancet, but it was actually shot down, I think, quite unreasonably by probably by the established modelers who hadn't thought of this before. And I thought given the circumstances, they demanded a kind of level of, yeah, a kind of level of technical rigor that was just not feasible in that time. So I mean, we had the preprint, we did advise some government advisory bodies. But ultimately it was not enough and it didn't, the government didn't get the act together in testing and tracing in near enough time. They could have done it way earlier. 7:10

G- Can we go back just a second? I remember that happening. Can you characterize the people who were involved in this online effort? Who are they? Level of functioning, level of expertise and stuff like that because they are not normal people.

so two of the main people I mentioned were William Waits and Simone Staglioni and they were really brilliant mathematicians, both of them, top great mathematicians. So Simone was, and probably still has gone back to that now, working in like solid-state physics and highly technical things outside of the health sector, but was just alarmed at the pandemic and it was online all the time and got involved.

He saw what we were trying to do. And William as well, like I mean, I think he went on to do a lot of work on COVID with the London School of Hygiene, Tropical Medicine and other universities, including UCL where I work. Yeah, both top rate mathematicians. And then another mathematician.

G- So they are not people whose expertise are really in question, because what happens a lot in emergencies in disasters is that volunteers do show up, there is often more people than roles and responders are then tasked with figuring out the situation... who do we have? Are they actually qualified? But there is no reasonable context in which this situation could be read like that?

So, not for those two people. I guess there were more people maybe who were trying to get involved. I was leading this project and as an academic, I guess I did filter out some people and then we did divide up the tasks based on people's skills. So some people were doing literature reviews. Some people, I even had a couple in China, Chinese academics who were looking up stuff related to Wuhan. And then various people on the economic side, actually from UCL, they were my colleagues. But yeah, I was able to screen, I guess, but also to recognize from the beginning that William and Simone were brilliant. 9:48

G- That coming together is really interesting. When you undertook this initiative, did you have that sort of globalized outcome in mind? Did you think that you would get the response that you did?

I mean, I was, I guess I was always aiming big. This is a clear gap in the evidence. And I, through my prior work, I did have connections with various people. And, to the point where the people on site, I knew some people on SPI-M or knew of them. And even the imperial modelers, one of them was my colleague's husband. So I was actually through her trying to get him to explain why they're not looking at testing and tracing. And they didn't really have a good answer to that. But they were also similarly overwhelmed with all the other stuff they were doing on the lockdown models.

G- When you would publish papers and came up with results that needed to be sent upwards, what would happen? (11:00)

So we typically just publish it online and then it would get some amount of attention. And the first draft, the first preprint we had actually got the attention of several journalists. So they published articles and then via that, I guess connections were made to various advisors in the government. and we were invited to join Zoom calls with various advisory groups and so on.

G- Can you tell us from your point of view, tell us about SAGE and their effectiveness and, as people doing work that you were trying to get integrated into the response, what they represented to you?

so I think Sage is an important body and we absolutely should have a Sage, but I guess as they found out quite quickly, the remit was too narrow. It was very much based on pandemic flu and all the exercises were based on pandemic flu, which is just a big problem. And they just didn't have a broad enough range of experts on SAGE. They did later they set up SPI-B, the behavioral science one, but they could have had another one on economics. In fact, they should have. I don't think they ever did do that...and or just in general have a broader based Sage, not just with not just with mathematical modelers, but with a broader range of expertise. I think that would have helped from the beginning. Yeah.

G- There was a fascinating separation, I think it occurred in all countries between the economic side and the medical side. Like you said there was not a lot of consideration of the social impacts of the decisions being made so since you sit kind of on the middle of that fence, can you talk about that and why those two things were not able to reconcile and how they ca better reconcile? (13:39)

so I mean, you're right, it was very kind of separated in the sense that the people doing the mathematical modelling on COVID were just very focused on the health outcomes only and not the costs and not the economics. We tried to put that together and in fact we did put that together in our paper, which recognized that there are downsides to these interventions as well as upsides. And so you can save lives, but if you cost the economy 100 billion pounds, more lives are going to be lost in the long run. So, they have to be brought together and they were not at all by the government. So then you've got people on the health side, including people like independent sage, but even just the normal sage saying that, we need the lockdowns. And then you've got people on the economic side saying, no, this would be an economic disaster for the UK. We can't do it like that. And there's no attempt to actually do the trade-offs.

G- Who would have found that middle because if you are dealing with context in which there an economic interest, a social interest and a medical interest....

Well, I think you need to put it all together in one model. So I mean, that's what we are trying to do. We just had the health and the economics, but you could have also added to that other health outcomes like mental health and social outcomes related to education. And so if that kind of work had been done in advance, and I think it's still not really been done because people have gone on to other things after the pandemic. Lots of people, well, a few groups started trying to do it. But that's something that if you had a sage group that had health, social science, education and economics all in one, and this had one model doing the trade-offs, of different policy options and all of those things, then that would have helped a lot, I think.

G- In a way, you, or RAMP should have not necessarily been doing that work that is work that should have been planned and programmed into the system of responding right?

Yeah.

G- It should have gone on and only if something very particular with particular expertise was required, you might have been asked but basically, you should not have been doing that work. Who should have been doing that work? Where should that responsibility fall?

Like I said, it should have been done before. Well, I think it should fall on the government.

G- The Royal Society? Because the SAGE remit is pretty limited.

I mean, it could be any groups organized by the government, I guess, but I mean, it should be, but it just needs to be organized in advance, not in a reactive way. So, I mean, there are various academies, Academy of Medical Science, Royal Society. I'm sure there's one for the economists. And if you put a group together with members of all those, and do it in advance so they've got time to work through in a non-emergency setting then, yeah.

G- My research interests are more in response and aftermath because planning, like psychology can be interpretive and does not necessarily have a hard centre because it is not something that happens in a sit and work things through kind of way, it is heavily politicized. And its only politicized, its parties wasting resources and stuff like that. Was the same sort of thing happening there with overlooking the planning, it just never came up and was never politically expedient to do so?

I think, I mean, there was some amount of planning, but it was just misdirected. So they did have a big exercise on pandemic flu in 2016. And even issues came up with that where they did, they actually simulated it with real cabinet ministers. And there was one bit in it where they had to make a call on who on turning off ventilators for elderly people, which actually is similar to what happened in COVID. Following that, they could have done a lot more planning, do you think? They could, I mean, they were, there were, there were things coming out of that which were just not acted on. And then they, and then they were similar to what happened just four years later.

G- Now, you mentioned that ....

So, I mean, in fact, I think, sorry, just go back to that. If I remember rightly, in that simulation exercise, when the cabinet minister was asked to turn off the ventilators or do something else, he actually said, no, I'm not playing this anymore. And he's walked out of the simulation because he didn't want to be in the newspapers saying that he had turned off. So that is the learning in itself, that this is an intolerable decision, but they didn't do anything about it afterwards.

G- There was no attempt to change the outcome?

Yeah. That was it was just that only came out after 2020 when they went look back at that. No one even knew about that.

G- One of the things that surprised me the most is that there was no succession planning. In a mass death event, there was no planning for dying so and so there was nobody doing that, it seemed like there was no centralizing logical force. (19:17)

No, and that's why it was, thinking back to April 2020 in the UK, it was a disaster in the sense that the Prime Minister was in intensive care with COVID. His main advisor, Dominic Cummings, also couldn't get out of bed with COVID. Much of the other cabinet also had COVID. I mean, it was, yeah, who knows what was actually going on, maybe nothing, except for, you know, people coming in and getting loads of government money to not deliver anything. There was actually a lot of corruption at that time, which has now come out.

G- Yes, I remember thinking that it’s a good thing none of our enemies are actually real because if they were, wed be in a particularly vulnerable position 20:24 At the beginning there was an approach based on previous learning from pandemic flu, really over the SARS...

which is surprising after SARS one.

G- So far, these interviews have uncovered that this is because there are groups of scientists that end up positioned wit access and a clique is formed based on, in this case the shared conviction that the pandemic flu approach would be the most effective

Or just the most likely, yeah.

G- Or just the most likely... what do those cliques look like? Can you tell us about them at all?

I mean, I don't really, I'm not sure if I cannot.

G- Let me try a different approach... why was the pandemic flu approach not optimal?

because it was, COVID was a different disease and they were expecting it to be like pandemic flu. And they were just not planning for what was going to happen with COVID in particular where it affected the elderly. There's that huge age gradient. And they were also just thinking that they could ride it out. They didn't consider doing lockdowns or testing and tracing in isolation or anything else. It was planned to kind of ride the storm.

G-As it became more obvious that that approach wasn't working and that a different approach was required, how did that replacement work? (22:30)

Well, ad hoc. It was very ad hoc. In particular, Boris Johnson would change his mind from day-to-day. say there's no way we're going to do a lockdown. Then a few days later, he did a lockdown. And, you know, if you're going to do it, better to do it earlier than later, because it then resulted in a bigger wave, which took a longer time to subside. And so the lockdown had to be on for a longer time than it would have. necessarily had to been on as early, but yeah.

G- So basically it was whim?

Yeah

G- And that implications for the work you re actually doing...for the modelling. Those whims can change potential outcome drastically, can you explain how?

because the timing of policy changes has a big effect when you've got a, you're facing a big epidemic wave, if even small delays can result in that wave being twice as large. And so it needs to be managed in a more nuanced way based on evidence of where we're at on the epidemic curve. So that's what we,

tried to simulate that in our model with on and off switches based on prevalence and assumptions about incidents. But yeah, real policy making was not as it's not as good as that in the UK. In other countries, I think they did better.

G- There was a lot of following science. They followed science to so many different places, as a researcher that was working on the same thing, how do you feel that was employed in terms of rhetorically, how was following the science used?

Yeah, no, I didn't like, yeah, I didn't like that rhetoric. I mean, their science implies that there's one agreed view and it was definitely not the case. And you could argue that the government were following one science one week and then a different science the other week. I mean, they met with the people behind the Great Barrington Declaration So you need to go up to Carl Hennigan and other people who are calling for no restrictions at all. And then and then they also but then they also listened to the Imperial lockdown modelling. So there was no the science and kind of suggesting that there was is I agree is misleading. And it's a weak defense for the kind of ad hoc but at the same time group think that was going on in the government.

G- Does that affects your working mindset and your approach to what you're doing? (25:38)

Not really.

I mean, in my work, I still weigh up the evidence and try to come to my own conclusion or see what the methodology that I've agreed will result in and follow that.

G- I would like to see if we could explore a little more the meeting of evidence and personality both on the academic and maybe less so because it was a little more obvious on the political side. Can you talk more about that?

I mean it was very clear that there was both the production of scientific evidence and the use of scientific evidence was heavily skewed on political lines. And so it's very clear that many scientists, I'm sure myself included, were influenced by their politics. And so you've got these right-wing groups pushing for opening everything up as quickly as possible and down the health consequences. You got these left-wing groups, the opposite basically, wanting more and more restrictions for longer and longer.

And it was very clearly tied to whether you're Conservative or Labour or right or left. I mean, the independent sage, I think, is a case in point. I think if Labour were in power, I don't think independent sage would have existed because it was very anti conservative, anti-Boris Johnson. I mean, yeah, I would

put myself in that same group as being anti Boris Johnson before the pandemic. There was a whole thing with Brexit and his incompetence and proroguing Parliament and and then it was borne out the incompetence in the handling of the pandemic at the beginning. Whether Labour would have actually handled it better, I don't know. We'll never know that. They might have done a bit, but they may still have suffered from the lack of planning that was government wide.

So yeah.

G- And the same sort of politicization... it would have been a different group with access protecting their access. Were there situations in which that access was protected against the better outcome? (28:25)

Yeah, I'm not sure if I could pinpoint anything like that. I mean, I don't know if the politics influenced the sage too much in the sense that they were already appointed, I think, before the pandemic. But then there were examples, for example, with the eat out to help out thing in the summer of 2020, which were heavily influenced by the Great Barrington people. And that kind of kicked off the second wave. It wasn't done in the best way, but yeah.

G- Can you talk about the impact and role, primarily of the more scientific media, not the, you know, famous British media but the more kind of long-term, involved information oriented media... how much of an impact did they have on your work? You said that initially they were the first vehicle for getting attention on it (29:42)

Sure. So I mean, I guess a good example would be the Financial Times. So they had some very good journalists who I was in touch with, while they got in touch with me after seeing what I was doing online. And we did a few articles, which, like you say, are more nuanced, going into the details of some of the claims and counterclaims. So I think they were A force for good. Yeah, I mean, they an early one we did in March 2020 was where the FT was disproving the paper put out by Sunita Gupta and colleagues saying that the wave was already over. I mean, because we actually had data from colleagues in Italy, which conclusively proved that the assumptions of that model could not be could not have happened. Actually, when you put the parameters together, it's just impossible for it to be like that. And so that was published in in the FTE in March 2020 going with explaining that.

G- Which again is not the correct forum for such a debate to be playing out. One would have hope that that was picked up on...

Well, yeah, I mean, it was a bit of a wild west in the sense of, I mean, us to putting out preprints without peer review. You know, the Sunita Gupta one was picked up by the media immediately because it said 50% of people had already been infected by COVID and we don't need to lock down. So it's over all the front pages and then the other media get involved, including the FT and we did that response in the FT.

G- So even the scientific media can feed that polarization you were talking about ad the modelers sitting in the middle of it are running data through their models trying to come up with understandings and insights into what is going on that they can use to make inferences about the future but the social pressures coming from outside are looking for specific results. They want outcomes that match what they are looking for. Did that at any point affect your work? (32:05)

Yeah.

I mean, it may be did in the sense that we really wanted the testing, tracing and isolation and wearing masks to be a viable strategy, but we tried to ground it in as much data as we could find. And I guess it's the same for other scientists who want to show a particular, for example, like the wave has already happened with Sunita Gupta. That was very obvious the way they did that paper without actually any data. But we did try to incorporate data as much as possible in our work.

G- Did people have the information they needed to make informed decisions? (32:50)

I mean, not readily. No, we had to search it out. So, we had made contact with people in Italy and China, etc. Not everything was freely available online. I mean, yeah, it was, yeah.

G- I mean more particularly the general public. Do you think that between the academic work that was going on the leadership interpretation and deployment (or not) of that research and the media representation of it, would an average person, not an academic really had the information required to make informed safety decisions during the pandemic?

I think it would have been very difficult to get an accurate representation because there was just, social media and online was just flooded with disinformation as well as information. So if you don't have training in knowing what is likely to be right and what is likely to be wrong, you wouldn't be able to navigate that, I don't think at all. And then you've got different newspapers picking up on different information or misinformation. And again, the journalists don't have the skills, the scientific training to know what's false and what's not. So they go with their bias and their political slant. And so then it's a mess, actually.

G- And their interests, they want to keep their jobs, they don’t want to lose .

Yeah. exactly. They don't want to rock the boat and they'll go with what they believe, what they believe they're ready.

G- What led to the official response being so difficult to access? Why was it so hard to move good ideas up the chain or if you saw problems in what was going on, how did those reports, what did their life look like? (34:50)

Yeah. I think there's, I mean, I think there are many reasons for this. Like everyone was overwhelmed with too much to do, too little time. At the same time, they're, scared with this pandemic going on, too many different calls on their attention and the lack of kind of pathways to do it is all very ad hoc and then people are ill with COVID at the same time. Yeah, so there's nothing kind of, there's no pre-existing channels. So then in a crisis, then it's even harder to do that.

G- So the main qualification one needed in order to move information upwards would have been connection?

Yeah, ultimately, I mean, for our group, it was through people we knew and through journalists and then through other people they knew. And there were lots of e-mail groups, e-mail. So I was added to many different e-mail groups. Some of them had hundreds of people on. So there was, and some of them were quite open to new members. But then there's hundreds of emails and you can't keep track of everything. But it was kind of an organic kind of networking if you like.

Were there official scientific channels that could be pursued if needed?

No, it didn't seem like that to me. It seemed very, everything was very unofficial. So it was on e-mail, on WhatsApp. Yeah, e-mail and WhatsApp. What would researchers without the access and connections do? There was nothing. I guess they would generally contact the researchers with those connections or join these big e-mail groups, yeah. So some of them were like lists, so if you just get your e-mail added, yeah.

G- In terms of online meeting that you participated in, can you tell us about them just generally who they were with how big they would be whether or not they were effective and characterize their membership, how they were chosen, how they came about, how was the online working context for you? (37:30)

so this is obviously it's kind of when all this online work started by necessity because no one could go out.

And so for the group that I was working with, that I set up with, we had 25 people and we would have regular Zoom calls like every few days with whoever is available. It could be anywhere from like five people to 20 people. And they work pretty well to discuss through particular issues. But I would say more communication was probably just on e-mail. We had a Slack group as well. So on e-mail or Slack or instant messaging, WhatsApp. And then the other ones I was what kind of working groups or government advisory things. They worked reasonably well. Yeah, I mean, they would be chaired by someone and then they would make sure that everyone got to speak if they had something to say.

G- How would people come to it because they would not have been recruited?

No, again, it's ad hoc. Yeah, it's ad hoc. So through e-mail. Yeah, mainly through e-mail, I think.

G- Can you explain that a little further, how would people find out about it and how would they come out of the woodwork, how would you draw them out? (39:19)

So I would just get an e-mail saying that I'm a government advisor. I'm working with this group in government. We've seen your work on testing, tracing and isolation and the economics of that. We're interested to discuss this. Can you join a call at this time? So do something like that.

G- SO they would reach out to you? And what about other volunteers, other academics and researchers? Same thing, they would have read your work somewhere and just decided themselves to get involved?

Yeah, So it's kind of ad hoc like that. And if you try to write, I probably did try to write the other way around, they wouldn't reply. So it's very much, you know, we'll call you, don't call us.

G- Can we go back to your initial involvement...what got you involved?

Just to kind of, like I said, the frustration that the government was not prepared. They were not considering this kind of third way with the testing and tracing and isolation. And they were not considering putting the health and the economics together in one analysis. So all of those things just kind of compelled me to start this work together with talking to others online. I mean, it's actually a really challenging time for me. We had a new baby at home, had other work to do. I probably didn't sleep more than four hours a night for like 4 months. but I kind of felt like I could make a contribution. So I tried to do them. 40:50

G- is that what seemed to be generally motivating the researchers that you worked with? (41:00)

Yeah, I think so. Again, kind of a frustration and a feeling that they could contribute or that they should contribute and both.

G- Do you think it is fair to characterize that initial period as basically, basic expectations f what should have been going on were not being met and the people whose job it was NOT moved themselves to fill in those gaps? Which gaps particularly did you feel that you could address?

the two are the gap in modelling, testing, tracing and isolation as an alternative to lockdown and at the same time including the economics, the costs, the kind of trade off as well as the health benefits. 42:02

G- Some of the people I've interviewed, I'm thinking of Dr Karl Friston for example who was involved with independent SAGE and whatnot, people that are.. he was not epidemiologically involved before, it's not his area, and his related skills could be brought to bare usefully and that is sort of what brought him in. G- Now he has the position of being, given his tenure and his age and the stuff he's done to say "I'm a world expert" and auto qualify, he kind of autoqualifies, was that different for early and mid-career researchers? (43:00)

Maybe, yeah. I mean, no offence to Carl Whiston, but his work was actually not very accurate. So, but obviously. no, I guess it was hard if, for me, I was an associate professor there, not a full professor, but I did have some standing as an associate professor at UCL and I did know enough people to bring this great core mass of 25 people together and then get media. So I think actually, I mean, my initial, so people from the media started contacting me in early March 2020 when they saw some of the stuff I was posting online and they saw that I was, an epidemiologist and studied these things. So maybe they've trusted me enough to get in touch or they just liked what I said, but I don't know.

G- What I'm trying to get at is a very specific.. how did the researchers organize and group themselves? Was there clustering with olders and youngers? Were the groupings based on expertise? What seemed to be the active characteristics?

So I'd say the biggest driving factor was the amount of time that people had on the amount of work they were producing. So William and Simone were, they were producing a lot of work very quickly. And so they were, I was in contact with them multiple times a day on that, whereas other people would only be doing, the odd bit. After a week or something and so then contact less often with them. Yeah, so I think that's the main thing. The amount of work.

G- And within the official response, the SAGE and government response, IM not in a position to understand the how it was grouped in terms of expertise, how did the SAGE and various official groups SPI and those things, did they group based on expertise? Did they tend to organize based on influence? What were their sort of predominant organizational characteristics? (45:30)

So I think they are based on expertise, but as I was saying earlier, the width of the expertise was too narrow. So it's very much on mathematical modelers of infectious disease, that's SPI-M. And I guess the membership of that once people move on or retire, they kind of handpick their replace their successes who they're probably already working with. There are only two or three groups in the country that lead on this. So one at Imperial, one at the London School of Hygiene and Tropical Medicine, and then other ad hoc people. So they've all worked together before, but it's a very niche field.

If they had actually boarding this out to people with expertise, in other kinds of mathematics like William and Simone had, they may have actually got more interesting inputs.

G- I get the impression that there was nobody present with that open mindset because when, I'd seen emails of various researchers offering various things to various decision-makers and the response is always a lack of capacity. They don't say that but the actual answer you are getting is "we don't have the capacity to onboard and understand this idea"

Yeah. I know. It's basically that. Yeah. And I think the same with SPI-M themselves. They're obviously doing lots of different modeling they've been asked to do for the government, so they don't have time to talk to anyone else or get anyone else involved or think about expanding it. So that, you're right, it's just because it wasn't organized in advance during the crisis, it's just not going to happen. I did reach out to a number of these modelers, like I said, about the testing and racing, didn't get anywhere. I had a few interactions with Graham Medley online, who is the chair of Spire, and he was just super pessimistic about everything.

So no, that couldn't possibly work.

No, He thought, well, can we try?

G- That's the thing that kind of got me reading those emails was that there wasn't like "you know we have a little bit of shelf space in the 3rd sub-basement where you can put your box and maybe it will do

something for us", where as it was just "we do not have the capacity, I cannot do that for you, sorry". How can that be changed? How should that be changed?

Look at it. I think it has to be, like I said, organized in advance. There has to be a kind of expansion of these standing groups, even if they're inactive before the next crisis.

Yeah.

G- I am unsatisfied with that response.

I mean, if it has to be after the crisis, if that's what you're saying, then there has to be a provision for someone whose job it is to seek out and get people on board who are not involved in them doing anything else.

There has to be someone whose job it is to do that.

G- If there was to be another such event, one could perhaps be forgiven for thinking that the response might not be much better than it was before, for precisely the same reasons.

Yeah, I agree.

G- If you had your druthers, how do me move forward in rectifying that? Can you give more detail about what those standing bodies and organizations would have to do and how they would have to change? (49:20).

So if you do it before the next crisis, you would have a consultation, make sure you have the breadth of expertise needed across economics, health, social science, education, mathematical modelling, behaviour, etc. Get a group of people covering that whole range kind of standing ready to go. They don't necessarily have to do anything now, but their name is there, the contact details are there. Maybe there's already an e-mail group set up and so that you can just hit the ground running or failing that at least have someone whose job it is to make such a group when there is quite clear there is going to be another disaster. So the example would be in January 2020, not in March 2020.

G- So in a way, you are describing WW2 civil defense.

I don't know much about that actually, but maybe.

G-...where there would be people in the neighborhoods responsible for overseeing, being kind of, the organization for the neighborhood when it was bombed so that they could deal with what they had to without, or with adding as little weight as possible to the central..... (50:51)

Oh, I see. Yeah, And I think also there needs to be, this needs to be instituted in the civil in the civil servants, in the civil service in government, which, they're independent of the politicians. And so these working groups are ready to go and then whoever's in power at the time can take that advice.

G- What form should the official response take, that can best make use of the ad hoc capacity that appears? One of the more simplistic problems I found was the lack of capacity to process data for modelling. Really? Because there is massive processing capacity available out there, untold. But it is not accessed so... how do those things get brought together? What does the official response need to do to organize that capacity? (51:52)

So again, if they had kind of a list of people already agreed who could step in, then that would help. If they also had infrastructure to store the data and so on, maybe on a government server. We also store in a secure way and a portal to access it and then they accredit people to access that portal. I mean, that could all be set up without any data in it.

G- You can crowdsource that sort of capacity reasonably and quickly, it's there to use it but there's no ...most of that capacity is going to be somewhat less qualified than yourself or William Waites, if you had a difficult time getting your plugged in, how can it be expected that the next step should occur where larger more meaningful raw capacity can be brought to bear?

Yeah. I mean, if it could be planned in advance, if there's some amount of vetting of who is accredited, then that would be one way of doing it. So actually recruiting people as volunteers, but you go through a recruitment process where they send their CV, maybe even do a little test.

G- Where they can actually figure out who they're working with. DO you think that that sort of checking happened? That the kind of traditional employment...

No no no

G- So it was just purely basically a social exercise?

No, I mean, ultimately it was. I mean, it was ad hoc in that nature. And yes, I'm sure there were many things that produced that were not very good.